

Internet Engineering Task Force: Open Process for Internet Standards

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Internet Engineering Task Force I E T F[®]

- Formed in 1986
- “We make the net work”
- The mission of the IETF is to produce high quality, relevant technical and engineering documents that influence the way people design, use, and manage the Internet in such a way as to make the Internet work better. These documents include protocol standards, best current practices, and informational documents of various kinds. [RFC 3935]



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IETF Open Standards

While the mission of the IETF is to make the Internet work better, no one is “in charge” of the Internet. Instead, many people cooperate to make it work. Each person brings a unique perspective of the Internet, and this diversity sometimes makes it difficult to reach consensus. Yet, when consensus is achieved, the outcome is better, clearer, and more strongly supported than the initial position of any participant.



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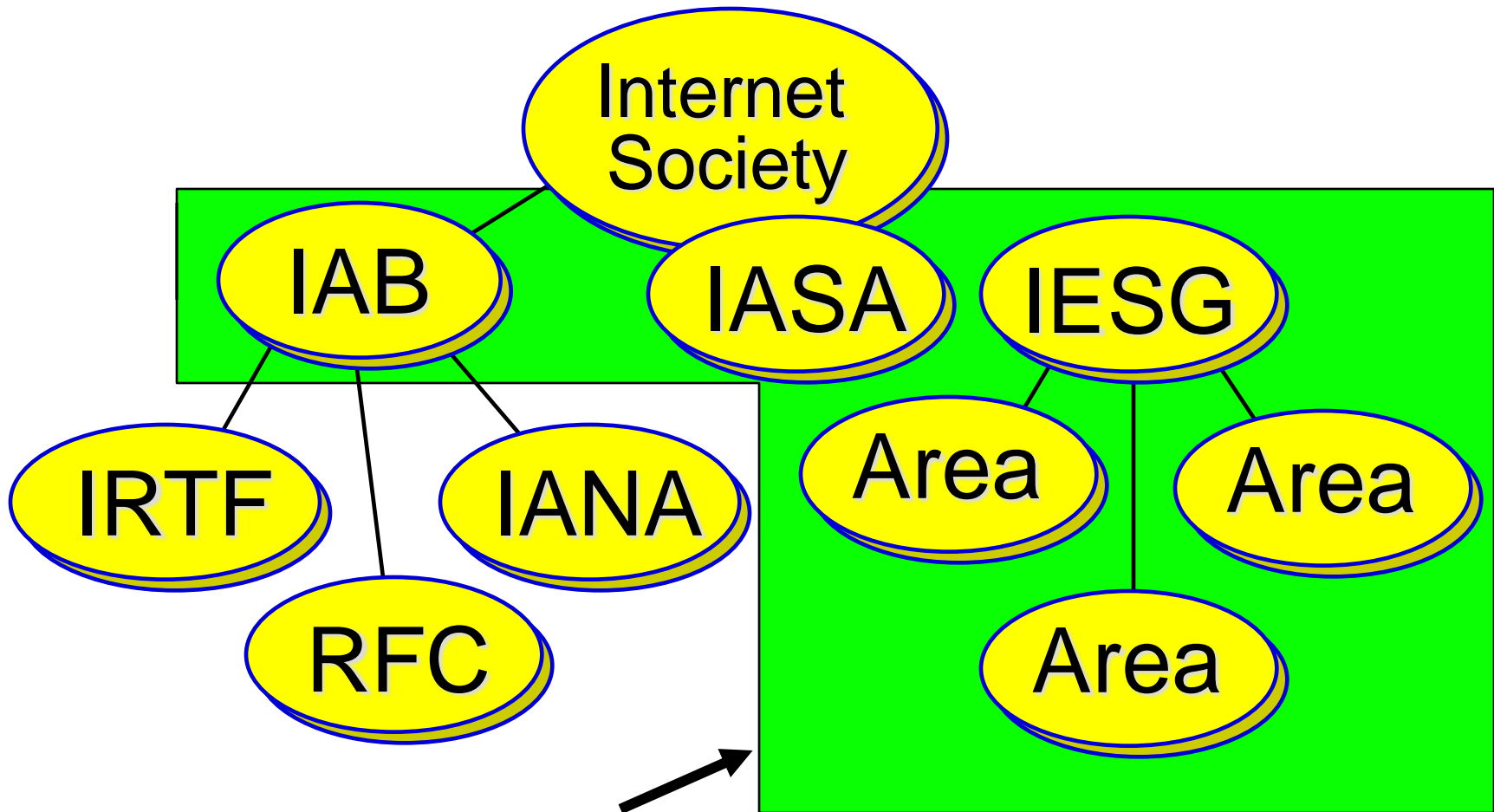
IETF Structure Overview

- The IETF is not a legal entity – no members
- 1000 to 1200 people at 3/year meetings
 - Many more people on mail lists
- ~120 Working Groups (WGs)
 - Where the real work gets done
- 7 Areas, each lead by two Area Directors (ADs)
 - Except General Area is lead by IETF Chair
- IESG: management, standards approval
- IAB: architectural guidance, liaison, oversight
- IAOC: oversee budget, contracts, and IPR



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IETF Structure Overview



"The IETF"

Ethos of the IETF

- IETF uses an open standards process
 - All interested people are invited to participate
 - Even if unable to attend the face-to-face meetings, invited to join mail list discussions
 - All documents are online, available to everyone
- One Internet
 - Open standards for a global Internet
 - Maximum interoperability and scalability
 - Avoid specialized protocols in different places
- Contributions are judged on merits:
rough consensus and running code



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IETF Moto

“We reject kings, presidents and voting. We believe in rough consensus and running code.”

Dave Clark, MIT



IETF takes on work when ... I E T F[®]

- The problem needs to be solved
- The scope is well defined and understood
- Agreement that the specific deliverables
- Reasonable probability of timely completion
- People willing to do the work

IETF is right place when ...

- The problem fits one of the IETF Areas
 - Applications
 - Internet
 - Operations and Management
 - Real-time Applications and Infrastructure
 - Routing
 - Security
 - Transport
 - General
- Working on problems that span Standards Development Organizations (SDOs) take *significantly* more effort to be successful



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IETF is successful when ...

- Participants care about solving the problem
- Participants represent all stakeholders
- Successful Internet protocols have come from top-down and bottom-up approaches
 - Bottom-up is more common today
 - Many efforts are incremental improvements



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IETF Management

- **IETF Chair**
 - IESG Chair, AD for General Area, IAB member, IAOC member, also seen as spokesman
- **Area Directors (AD)**
 - Two ADs for each Area other than the General Area
- **Internet Engineering Steering Group (IESG)**
 - ADs sitting as a body
- **Internet Architecture Board**
- IETF Chair, ADs, IAB, and two IAOC members selected by Nominating Committee for 2 year term



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Area Directors

- Responsible for setting direction in the Area
- Responsible for managing process in the Area
 - Approve Birds of a Feather (BOF) sessions
 - Appoint working group chairs
 - Oversee working group charters
 - IESG and IAB involved in charter approval
- Review all working group documents prior to IESG evaluation
 - IESG approves all IETF RFCs



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IETF Working Groups

- Where the IETF primarily gets work done
 - Most discussion are on mail list
 - Face-to-face meetings focused on key issues
- Working group focused by charter with milestones
- Charter approved by IESG with advice from IAB
- No defined membership – just participants
- “*Rough consensus and running code...*”
 - No formal voting
 - Does not require unanimity
 - Disputes resolved by discussion
 - Final decisions are verified on mail list



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Nominations Committee

- IETF Chair, ADs, IAB and 2 IAOC members are picked by Nominations Committee
 - NomCom Chair appointed by ISOC president
- Volunteer to be a NomCom voting member
 - Must attend 3 of last 5 IETF meetings
 - Ten voting members randomly selected from the volunteer pool
- NomCom picks one person for a 2 year term
- Confirmation before names are announced
 - IETF Chair and ADs confirmed by IAB
 - IAB confirmed by ISOC Board of Trustees
 - IAOC confirmed by IESG



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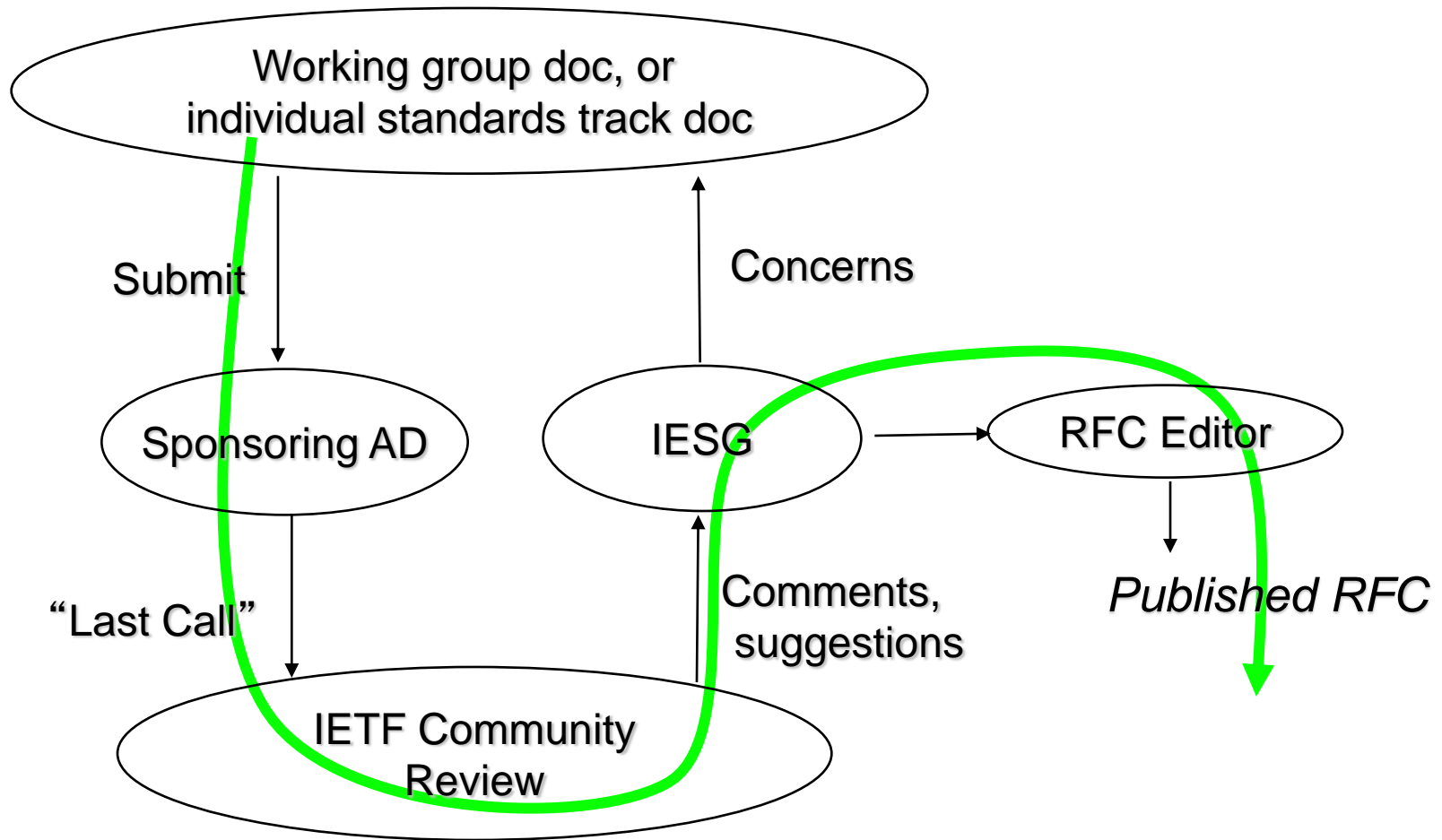
Voluntary Standards

- The IETF standards enable interoperability only because people choose to use them
 - Some other SDOs can mandate use of their standards
 - No governmental recognition for IETF standards
 - Some indications that this is changing



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IETF Standards Approval



IETF Summary – IETF Movie



http://www.youtube.com/watch?v=tqc8vd_jPpg

Thank You



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Engineering the Internet's Future for 25 years.

IETF

Internet Engineering Task Force

www.ietf.org